

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Canceled)
2. (Currently amended) The method of claim ~~[[1]] 50~~<sup>1</sup>, wherein the ligand is a flavone.
3. (Currently amended) The method of claim ~~[[1]] 50~~<sup>1</sup>, wherein the ligand is an aurone.
4. (Currently amended) The method of claim ~~[[1]] 50~~<sup>1</sup>, wherein the ligand is a T4 analog.
- 5-49. (Canceled)
- ~~50~~<sup>1</sup>. (New) A method of assaying a translation product of a mutant  $\Delta TR\alpha 2$  gene, the method comprising
  - (a) providing a test cell that comprises p29 vesicles and a mutant  $\Delta TR\alpha 2$  translation product;
  - (b) contacting the test cell with a labeled  $\Delta TR\alpha 2$  ligand for a time sufficient to permit binding to the translation product; and
  - (c) measuring the amount, location, or rate of transit of the ligand in the test cell compared to the amount, location, or rate of transit of the ligand in a control cell that does not comprise a mutant  $\Delta TR\alpha 2$  translation product.
- ~~51~~<sup>5</sup>. (New) The method of claim ~~50~~<sup>1</sup>, wherein the cell is a neuron.

- 6** ~~52~~. (New) The method of claim ~~50~~<sup>1</sup>, wherein the cell is an astrocyte.
- 7** ~~53~~. (New) The method of claim ~~50~~<sup>1</sup>, wherein the amount of the ligand in the cell is measured.
- 8** ~~54~~. (New) The method of claim ~~50~~<sup>1</sup>, wherein the location of the ligand in the cell is measured.
- 9** ~~55~~. (New) The method of claim ~~50~~<sup>1</sup>, wherein the rate of transit of the ligand in the cell is measured.
- 10** ~~56~~. (New) The method of claim ~~50~~<sup>1</sup>, wherein the control cell comprises a wild type  $\Delta TR\alpha 2$  protein, and a decrease in the amount location, or rate of transit of the ligand in the test cell compared to the control indicates a decrease in the ability of the translation product to transport a vesicle compared to a wild type  $\Delta TR\alpha 2$  protein.